

US Serial No.: 09/062,969
Amendment to Office Action dated 2/17/04
Attorney Ref. No.: RM-1134

REMARKS AND ARGUMENTS

A petition of time for a three month extension is submitted herewith under separate cover.

The first paragraph of the applications, page 1 has been amended to add application serial numbers and/or patent numbers for other applications incorporated by reference, as requested by the Examiner.

Claim 15 has been amended to replace the 'invention' with the 'information' to correct a typographical error, and thereby overcome the §112 rejection.

Examiner states applicants' arguments with respect to claims 1-8 and 10-17 are moot in view of new grounds. The Examiner has rejected claim 1-8, 10-17 under 35USC 103(a) as unpatentable over Focsaneanu in view of Gerszberg.

The Examiner argues that Focsaneanu discloses only two modal forms, i.e. audio and visual, and does not disclose the tactile modal form, and that Gerszberg discloses a network server platform for Internet, Java Server, and video application server comprising the following features: providing multimodal user interfaces capable of supporting input and output in one or more of audio, visual and tactile modal forms; and passing information in audio, visual and tactile form, and argues that it would have been obvious to one of ordinary skill in the art to modify the network of Focsaneanu by using the features as taught by Gerszberg et al. in order to improve the capabilities of the customer premises equipment and lowering overall system costs to the customer by providing "competitive service alternatives" (ref. col 2, lines 30-32 of Gerszberg).

In contrast, the current application describes a server for handling multimodal information and an aspect of invention described in the present application is directed to managing a multimodal user interface having modal sensitivity to audio, visual and tactile modes of interaction of a user, typically a human user, with a multimodal user interface for a communications terminal. By providing capability for a user to interact with a terminal using one or more modal forms of user input and/or output, and resolving conflicts between different modal forms of user input/output

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that may be used simultaneously, problems for a user interacting with multimodal user interfaces are reduced.

As noted for example, at page 4, line 30 of the present application, preferably, the service controller is operable to receive input in different modes simultaneously from the same user, to resolve any conflicts, and determine an intention of the user based on the inputs. Thus the service controller facilitates use of more than one modal forms of input and output.

Amendments to main claims 1, 12, 14, 15 and 16 have been made to add feature clarifying, e.g. that the service controller or associated method, is operable to receive input in different modal forms simultaneously from a user interaction at the multimodal interface, and to resolve conflicts and thereby distinguish more clearly over the cited references.

To assist in understanding distinctions over the cited art, referring to U.S. patent application 6,012,030 (ser. No. 09/062,970), which was incorporated by reference within the current application, this related application describes at col. 2 to col. 3, cited below, some of the problems users may have trying to use particular input/output modalities in existing systems:

While interfaces for communications devices and computer systems are becoming increasingly able to accept input and provide output through various sensory modalities, existing systems and devices present some problems when the user tries to use particular input/output modalities according to the task at hand.

In using such an interface, for example, a user might request an item using speech, and then be presented with a list of choices on the screen, that requires some scrolling to access the relevant section of the list. At this point the user may choose to touch the scroll control and then touch an item on the list that they require.

Ideally the user wants to smoothly transition from one type of input/output modality to another, e.g. from a primarily speech input/output to a graphical and touch control structure. However there are problems with providing this

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transition in practice because there is an intrinsic conflict between speech interaction and graphical interaction styles.

Current graphical interfaces are directed through a task by a user. Nothing happens unless a user clicks on a screen based object or types from a keyboard. The user maintains control of the interaction, and can pause and restart the task at any time.

In contrast, speech interfaces tend to direct a user through a task. The user initiates the interaction, and thereafter the speech recognizer prompts the user for a response, i.e. asks the user to repeat a name, etc. and expects an almost immediate input. As mentioned above, speech recognizers for communications devices typically operate within a limited time window, usually within a few seconds after a speech prompt. Thus, the timing of the listening window of speech recognizer controls the requirement for the user to respond, to avoid an error or reprompting. Users often report feeling rushed when prompted to respond immediately after a beep or other speech prompt.

For, example, a user may choose or be prompted to use one or more modalities, and the present invention provides for management of user interface for input or output using an appropriate one of several complementary modalities

Thus, the invention described in the present application relates to problems of managing the user interface at an application level. In one embodiment, there is described Java web server implementation providing enhanced servlets called multimedia servlets, eg. voice enabled web server applications. As noted in the application, aspects of the invention enable multimodal interfaces to be provided using thin clients.

The invention described and claimed is therefore directed to solving a different problem from that described in Focsaneanu and/or Gerszberg, which the examiner states as providing "competitive service alternatives". Consequently, Gerszberg does not provide what is lacking in Focsaneanu with respect to the invention claimed in the present invention. Indeed there would be no motivation to combine Gerszberg with Focsaneanu to solve the problem addressed by aspects of

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the present invention since both Focsaneanu and Gerszberg relate to other aspects of network communications. For example, Gerszberg relates to architecture for differentiation of local access services, see col. 11, line 37.

Since the invention described in the present application relates to a server for handling information in different modal forms for managing a multimodal user interface and the cited references are not directed to aspects of managing a user interaction with a user interface at an application level as described in the present application, the applicants believe that the cited references do not provide basis for a s.103 rejection.

It is therefore believed that the claims, as amended, distinguish more clearly over the cited references taken alone or in combination.

The applicants respectfully request reconsideration of amended claims in light of the arguments presented above.

Respectfully submitted,
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